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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PHILPOTT, JUSTIN M

ART UNIT PAPER NUMBER

2665

DATE MAILED: 08/19/2004

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/558,589

Applicant(s)

YOUNES ET AL.

Examiner

Justin M Philpott

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 9, 2004 has been entered.

Response to Arguments

2. Applicant's arguments filed June 9, 2004 have been fully considered but they are not persuasive.

First, applicant argues (pages 9-12) that in applicant's invention, the connection configuration is done at the input point of the device by attaching overhead information for the connection to packets received at the input point, whereas in Aznar, connection configuration is done *at* its TP_vector which is *at* an output point for its system (emphasis added). However, with this comparison, applicant has misrepresented the teachings of Aznar. Specifically, Aznar discloses an invention which "resides in the transmit side 110" of the system (col. 2, lines 52-54) for controlling the switching of traffic towards output ports 102-104 (col. 2, lines 45-51). The connection control information block 208 located at the input point (i.e., transmit side 110) contains the TP_vector 210 which in turn contains the identifiers of all target ports (col. 3, lines 5-9). Thus, the TP_vector is clearly contained within the input point of Aznar, and *not* at an

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output point of the system as argued by applicant. Accordingly, applicant's argument is not persuasive.

Second, applicant argues (pages 10-11) that "Aznar does not teach subsequently changing the original point-to-point information relating to the packet as provided in newly amended claim 1". However, claim 1 does not recite such a "changing" step. Thus, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the above-mentioned "changing" step) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Thus, applicant's argument is not persuasive.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Specifically, claim 1 recites the new limitation of performing step (e) "instead of attaching said overhead associated with said point-to-point connection". Applicant's

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specification fails to discuss such a feature. Thus, claim 1 fails to comply with the written description requirement. Claims 2-8 depend upon claim 1 and are therefore rejected for the same reason.

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1, 2, 7-19 and 21-24 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,684,797 to Aznar et al.

Regarding claims 1, 9 and 15, Aznar teaches a method of processing a stream of data packets in a packet switch (e.g., see FIG. 1, and col. 1, line 49 – col. 6, line 38) having one or more interface devices (e.g., receive side 111/input port adapter, transmit side 120/output port adapter) for servicing an input point (e.g., 101-P1), a first output point (e.g., 102-P1) and a second output point (e.g., 104-P2) of the switch, the method comprising the steps of: (a) configuring the device servicing the input point to attach overhead associated with a point-to-point connection (e.g., TP vector representing a single target port, see col. 2, line 66 – col. 3, line 19) to packets received at the input point in order to route the packets to the first output point; (b) configuring the device servicing the first output point to receive and process the packets having the point-to-point overhead attached thereto (e.g., see col. 3, lines 46-52 wherein TP vector denotes overhead corresponding to a single output port, or a point-to-point connection); (c) configuring the device servicing the second output point to receive and process packets having overhead attached thereto which is associated with a point-to-multipoint connection for routing

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packets from the input point to the first output point and from the input point to the second output point (e.g., see col. 4, lines 38-60 wherein TP vector denotes overhead corresponding to a plurality of ports, or a point-to-multipoint connection); (d) configuring the device servicing the first output point to additionally receive and process packets having the point-to-multipoint overhead attached thereto (e.g., see col. 3, lines 20-30 wherein the device servicing the first output port is configured to receive and process TP vectors, or packets having point-to-multipoint overhead attached thereto), wherein the configuration of the device servicing the first output point that results from step (b) remains unchanged (e.g., see col. 2, lines 15-22, wherein Aznar teaches “easy system network control evolution from an initial point-to-point connection to a point-to-multipoint connection by *adding* parties, i.e., additional target ports” and “When another party should be added, the system network control *adds* an identifier, representing the new target port” [emphasis added]); and (e) configuring the device servicing the input point to attach the point-to-multipoint overhead to packets received at the input point only after step (d) is completed, thereby converting a point-to-point packet flow into a point-to-multipoint packet flow without disrupting the point-to-point packet flow (e.g., see col. 2, lines 15-22), wherein the system of Aznar inherently does not attach overhead associated with a point-to-point connection since the overhead is now associated with the plurality of connections corresponding to the point-to-multipoint connection (e.g., see col. 2, line 6-22).

Regarding claims 2, 10 and 19, Aznar further teaches the steps of: (f) configuring the device servicing the second output point to stop receiving and processing packets having the point-to-multipoint overhead (e.g., resetting bits corresponding to ports, see col. 4, lines 15-19); (g) configuring the device servicing the input point to attach the point-to-point overhead packets

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received at the input (e.g., see col. 2, line 66 – col. 3, line 19); and (h) configuring the device servicing the first output to stop receiving and processing the packets having point-to-multipoint overhead only after step (g) is completed (e.g., wherein packets are only sent to designated ports in accordance with received TP vectors, see col. 4, lines 1-54), thereby terminating the flow of packets to the second output point without disrupting the flow of packets to the first output point (e.g., see col. 2, lines 15-22 wherein a connection can be changed on the fly from point-to-multipoint to point-to-point).

Regarding claims 7, 14 and 24, Aznar teaches a packet is a fixed-length cell (e.g., see col. 3, lines 46-49 regarding ATM cell).

Regarding claim 8, Aznar teaches the packet switch is a connection-oriented switch (e.g., see col. 1, lines 49-52).

Regarding claims 11, 16 and 21, Aznar teaches the point-to-point overhead comprises a unique interface card address (e.g., a TP vector for a point-to-point connection comprises one bit set to 1 wherein the specific placement of the 1 within the vector corresponds to a specific unique port, or interface card).

Regarding claims 12, 17 and 22, Aznar teaches the point-to-multipoint overhead (e.g., TP vector) comprises a multicast interface card address referencing a plurality of interface cards (e.g., each bit of TP vector corresponds to one of a plurality of ports, or interface cards).

Regarding claims 13, 18 and 23, Aznar teaches the point-to-point overhead and the point-to-multipoint overhead comprise identical bitmaps wherein the setting of a single bit identifies a point-to-point connection and the setting of plural bits identifies a point-to-multipoint connection (e.g., see col. 3, lines 10-20).

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 3-6 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aznar in view of U.S. Patent No. 5,959,972 to Hamami.

Regarding claims 3 and 20, Aznar teaches the method as discussed above regarding claims 2 and 19, and further teaches the point-to-point overhead comprises a unique interface card address (e.g., a TP vector for a point-to-point connection comprises one bit set to 1 wherein the specific placement of the 1 within the vector corresponds to a specific unique port, or interface card).

However, Aznar may not specifically disclose each switch point is further referenced by a virtual path identifier.

Hamami teaches a method of port/link redundancy in an ATM switch. Specifically, Hamami discloses that it is well known in the art of ATM switches that an ATM header comprises a virtual path identifier (e.g., see col. 1, lines 43-55) which allows the network to associate a given cell with a given connection. Furthermore, the port/link redundancy invention of Hamami provides improved connectivity reliability (e.g., see col. 2, lines 34-49). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the teachings of Hamami to the method of Aznar in order to allow the network to associate a given cell with a given connection and, further, to provide improved connectivity reliability.

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Regarding claim 4, as discussed above regarding claims 11, 16 and 21, Aznar teaches the point-to-point overhead comprises a unique interface card address (e.g., a TP vector for a point-to-point connection comprises one bit set to 1 wherein the specific placement of the 1 within the vector corresponds to a specific unique port, or interface card).

Regarding claim 5, as discussed above regarding claims 12, 17 and 22, Aznar teaches the point-to-multipoint overhead (e.g., TP vector) comprises a multicast interface card address referencing a plurality of interface cards (e.g., each bit of TP vector corresponds to one of a plurality of ports, or interface cards).

Regarding claim 6, as discussed above regarding claims 13, 18 and 23, Aznar teaches the point-to-point overhead and the point-to-multipoint overhead comprise identical bitmaps wherein the setting of a single bit identifies a point-to-point connection and the setting of plural bits identifies a point-to-multipoint connection (e.g., see col. 3, lines 10-20).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M Philpott whose telephone number is 703.305.7357. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on 703.308.6602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Justin M Philpott



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